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ABSTRACT

A total of 959 children who applied to enter kindergarten in 1986 in 6 Virginia school districts were studied in an effort to determine the relation of social class, age, ethnicity, and gender to kindergarten placement decisions, i.e., to nonplacement, placement in a regular kindergarten class, or placement in junior kindergarten. All participating districts screened all children entering school. The three types of initial data collected on each child were classified as demographic, screening, and placement. Demographic data included: birth date, eligibility for subsidized lunch, gender, and ethnicity. Placement categories included: not enrolled in kindergarten, enrolled in junior kindergarten, and enrolled in kindergarten. Students were tested with the Brigance Kindergarten and First Grade Screen, the Daberon Screening for School Readiness, or the Missouri Kindergarten Inventory of Developmental Skills (KIDS). Moderately predictive of placement were socioeconomic status (SES), ethnicity, gender, and age. More predictive was a main-effects model including SES, gender, and age. Findings indicate that poor, young males face a stronger likelihood of being placed in junior kindergarten than their peers. Poor, young males were 32 times more likely to be placed in junior kindergarten than were their nonpoor, older, female peers. Policy implications are discussed. (RH)

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Knocking on Kindergarten's Door: Who Gets In? Who's Kept Out?

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Running head: KNOCKING ON KINDERGARTEN'S DOOR

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Abstract

In this article the initial placement decisions of 6 Virginia districts that gave screening tests to all children prior to school entry and that had junior kindergarten programs are examined. The relationships between placement into regular or junior kindergartens and SES, ethnicity, gender, and age are analyzed first separately and then in combination. SES, ethnicity, gender, and age are each moderately predictive of placement. A main-effects model with SES, gender, and age is more predictive. Younger, poor boys are more likely than other groups to be placed in junior kindergartens-- 32 times more likely than older non-poor girls. Policy implications are discussed.

Knocking on Kindergarten's Door: Who Gets In? Who's Kept Out?

In his now-classic "Beyond the two disciplines..." paper, Cronbach (1975) argued that it is the "special task of the social scientist in each generation to pin down contemporary facts....[and] to realign culture's view of [people] with present realities" (p. 126). In this article we examine a widespread contemporary fact of early public schooling, the placement of children who are old enough to enter kindergarten into junior kindergartens, where they spend a year of schooling prior to promotion into regular kindergarten[1] (Smith & Shepard, 1989; Walsh, 1989). These programs are also referred to as prekindergartens or developmental kindergartens. They are not to be confused with prekindergarten programs for 4-year-olds, that is, children who are not old enough, by local regulations, to enter kindergarten.

We present initial results from a longitudinal study of children who applied to enter kindergarten in 1986 in 6 Virginia districts.[2] Specifically, we examine how social class, ethnicity, and gender are related to initial kindergarten placement decisions. These data are from a larger study of the effects of screening for kindergarten entry. The 6 districts examined screened all children entering school and had junior kindergartens in addition to the regular kindergarten program.

We do not look at the relation between screening test scores

and placement for two reasons. The first is theoretical: we are interested in a more basic question: If schools have junior kindergartens, which children are placed in them, regardless of the selecting or sorting mechanisms. The second is practical: screening test scores could not be compared across districts. Not only were different tests used across districts, different criteria for judging performance on the tests were used across districts, often across schools within a district. Eads, Miller, Ellwein, and Walsh (1990, p. 11) determined that of the Virginia districts that screened all children entering kindergarten, fewer than half (44%) had articulated standards for assessing test performance; 35% had "fuzzy" standards, with variation across and even within schools; and 21% had no standards. We have analyzed the psychometric qualities of the screening tests[3] elsewhere (Ellwein, Walsh, Eads, & Miller, in review), and concluded that the tests "used to identify readiness and predict future performance are deficient at best and discriminatory at worse" (p. 23).

Background

In 1985 the Virginia legislature revised the entrance age law, changing the "cutoff" birth date from December 31 to September 30. This was to be done, however, gradually and with certain exceptions. Beginning in the fall of 1986, the birth date for eligibility to kindergarten was "rolled back" at the rate of one month a year. The exception was that parents of children with

birth dates between the new and old cutoff dates could petition their district for early entry. Districts were required by the law to test such a child to "determine his [sic] readiness for the kindergarten program" (Code of Virginia, 1985). (For detailed description, see Eads et al., 1990). For the cohort examined in this paper, the cutoff date was November 30. Hence in our analysis, when examining age we look at the December-born children separately.

Method

Data Collection

In 1986, all school districts in Virginia were asked to participate in a study of the effects of the use of kindergarten screening instruments. Fifty-five of the 135[4] school districts agreed to supply data on students from the time they were screened prior to kindergarten entry through fourth grade. The cohort of approximately 2,400 children was screened for the 1986/87 school year.

As indicated earlier, ours was a volunteer sample. We should note that even if we could have selected a random sample, e.g., had participation been mandated by the legislature through some fanciful turn of events, we would have been hard pressed to select a representatively random sample: screening policy and practice vary from district to district and from year to year, and a major aim of the larger study is to document these policies and practices. We compared the participating districts with the

population of districts, that is, all the districts in the state, on the following characteristics: type and location, enrollment, expenditures, and socioeconomic status (SES). We present detailed comparisons elsewhere (Walsh, Ellwein, Eads, & Miller, 1990), concluding "...although the sample was not a random one, we believe it to be representative of district characteristics and screening policies in Virginia. The sample districts were located throughout the Commonwealth and were typical of the range of enrollments, expenditures, socioeconomic indices, and screening policies found in the population of districts" (p. 4).

Initial data. We collected three types of initial data on each child: demographic, screening, and placement. For this analysis we used following demographic data: 1) birth date, 2) eligibility for subsidized (free or reduced) lunch, 3) gender, and 4) ethnicity. Placement categories included (1) not enrolled in kindergarten, (2) enrolled in junior kindergarten, and (3) enrolled in kindergarten.

Data set. For this study we selected a subsample of 6 districts that had junior kindergartens, tested all students, and supplied us with the scores of all children tested (n=1,087). Of these students, we excluded 128 who were born before 1981, that is, children who were old enough to have entered kindergarten the year before (giving an n of 959). It seemed very likely that these children would be placed in regular kindergarten simply because they were older than their peers, independent of their

SES, gender, or ethnicity. In fact, 88% (including 6 children repeating kindergarten) were placed in regular kindergarten, compared to 73% of those born in 1981.

Of the sample students, 67% were tested with the Brigance; 21%, with the Daberon; and 12%, with the KIDS. Thirty-seven percent were eligible for subsidized lunch[5]. Fifty-three percent were male. Thirty-four percent were from minority groups traditionally considered disadvantaged (black, Hispanic, and native American). Twenty-one percent were born in the fall (October, November, and December); 6% were born in December.

Representativeness of the subsample. Statewide, 17 districts that tested all children had junior kindergarten programs. Most of these districts were located in the south-central and northeastern parts of the state and were small and medium-sized districts. One district, which was in our sample, was located in the western section of the state. Table 1 lists all such districts and the following demographic characteristics: SES, enrollment, and expenditures. The subsample contains more small districts than the sample (median: 2316 vs. 3311), but otherwise there is no apparent systematic bias.

Table 1 about here

SES, Ethnicity, Gender, Age and Initial Placement

Of the 959 children in this cohort, only one child was not

placed in school. This child was enrolled in kindergarten the following year. Twenty-seven percent were placed in junior kindergarten the first year.

Using cross-tabulations and chi-square analyses, we examined the relationship between SES, ethnicity, gender, and age, and initial placement. Interactions among the variables were examined using log-linear analysis.

SES. We divided children into 2 categories: those eligible for subsidized lunch, and those not eligible. Basically this measure differentiates the poor from the not poor. Although other more discriminatory measures of family income would be preferable, such measures were not available. Figure 1 shows the proportions of children in this subsample who were placed in and out of regular kindergarten by SES.[6] The strength of the association between SES and placement, measured by the coefficient of contingency (Glass & Hopkins, 1984, p. 290), is .26. Forty-two percent of the subsidized lunch children were placed in junior kindergarten as compared to 18% of those not eligible. Poor children composed 37% of the total yet they made up 58% of the junior kindergarten enrollment.

Figure 1 about here

Ethnicity. Figure 2 shows that 77% of the majority children were placed in regular kindergarten classrooms as compared to 63%

of the minority children. Although minority children make up 34% of the total, they make up 46% of the junior kindergarten placements. The relationship between ethnicity and placement (C=.15) is not as strong as between SES and placement.

Figure 2 about here

Gender. As Figure 3 shows, there were more boys than girls in this cohort, however, slightly more girls were placed in regular kindergarten. Many more boys were placed in junior kindergarten--62% of the junior kindergartens placements were boys. Again the relationship here is weaker (C=.10) than with SES.

Figure 3 about here

Age. As Figure 4 shows, age is a relatively strong predictor of placement (C=.27). We divided the children into 4 age groups (from oldest to youngest): Winter birthdays (January, February, March), Spring (April, May, June), Summer (July, August, September), and Fall (October, November, December).[7] As the groups get younger, progressively fewer children are placed in kindergarten: 86% of the winter, 82% of the spring, 67% of the summer, and 54% of the fall. As Figure 5 shows, for December birthday children, the percentage drops to 40%.

The combined effects of SES, ethnicity, gender, and age.

In the following section, we report results of log-linear analyses that examined the combined influence of SES, ethnicity, gender, and age on initial placement. The dependent variable--inclusion or exclusion from regular kindergarten--is the same as in the previous analyses.

A main-effects model proved to be the best fit for the data (X^2 = 8.09, df =10, p=.62); only gender, SES, and age were statistically significant. Table 2 lists the possible combinations of students by these three variables and the observed probabilities of placement in and out of regular kindergarten. The last two columns of Table 2 are the predicted odds for exclusion from and inclusion in regular kindergarten, respectively. For example, 64% of population #4--younger (fall-born) males eligible for subsidized lunch--were excluded from regular kindergarten classrooms. For children in this group, odds are 2.25 to 1 for exclusion. In contrast, older (winter-born) males not eligible for subsidized lunch have much lower odds--.11 to 1 for exclusion. Said another way, the odds for inclusion in regular kindergarten are 9 to 1 for children in this latter group (1/.11).

Table 2 about here

The odds of being excluded from regular kindergarten decrease

for children born earlier in the year. Odds for exclusion are higher for males than females. All other things equal, students eligible for subsidized lunch have greater chances of being kept out of regular kindergarten. Young, poor males have the greatest odds of being excluded (2.25 to 1) and older, non-poor females have the smallest (.07 to 1).

Knowledge of individual population odds permit one to compare chances between populations. Continuing with the previous example, young, poor males are 32 times more likely to be excluded from regular kindergarten than older, non-poor females. A less extreme, but nonetheless compelling, comparison is between fall-born males who differ in SES. Those not eligible for subsidized lunch are 3.5 times more likely to be placed in regular kindergarten than their poorer counterparts. The discrepancy is considerably smaller for fall-born females who differ in SES, with non-poor girls only 1.13 times more likely to be placed in kindergarten.

Discussion

In this article we have reported on only the first stage of a 5-year longitudinal study and thus tell only the first chapter of what promises to be a very important story. The relations between SES, ethnicity, and gender, and placement are striking; but alone none of the three is a strong predictor of placement. As they interact, however, they become much more predictive. Children are not simply poor, they come from minority or majority backgrounds,

they are boys or girls, they can be younger or older relative to their peers. We have shown that the poor, young boy will face a stronger likelihood of being placed in junior kindergarten than his peers, and a much stronger likelihood than his non-poor, older, female peers.

As explained earlier, we have not discussed the screening tests themselves. Our purpose here is to show that whatever scores children are achieving on the screening tests, other factors, which have long been predictive of other aspects of academic success and failure, are very predictive of their initial placement.

In the larger sample (n=2,396), 170 (7%) children were not enrolled in school after having been screened. These children had mostly December birthdays. One apparent effect, then, of having a junior kindergarten program, is that children whose parents petition for early entry are enrolled in school rather than being asked to wait a year.

Junior kindergarten placement itself, however, remains problematic. The evidence to date on extra-year programs is negative: "Two years in kindergarten, even when one year is labeled 'transition program,' fail to enhance achievement or solve the problem of inadequate school readiness" (Smith & Shepard, 1989, p. 215). It should be pointed out that the studies reviewed by the Smith and Shepard were primarily of children who were retained in kindergarten or who were placed in transition programs

between kindergarten and first grade (rather placed in junior kindergartens). Given the strong negative findings from the research on retention (Holmes & Matthews, 1984; Holmes, 1989; Jackson, 1975), we would be surprised to see what could be described as "pre-flunking" turn out to be beneficial. Still one must be cautious. As this research progresses, we hope to be able to say more about the effects of junior kindergartens.

Some cautions: One must be careful in interpreting data that have been collected at the district level. Such data can mask important within district differences, both across school and within school. We can only speculate, but it seems likely that a poor, young boy will face even higher odds of being placed in junior kindergarten than reported here in a school where there are few poor children. It is also likely that in schools with predominantly poor populations, other, more subtle, factors will be more predictive than the ones we have examined. A final speculation that is particularly troublesome: As middle class parents become aware that a disproportionate number of poor boys are being placed in junior kindergartens, will not fewer of them accede to junior kindergarten placement decisions; and will junior kindergartens not become low SES, male ghettos? Further, more fine-grained research is needed to answer these questions.

Many states are facing situations similar to Virginia's, and decisions are being made based on very shaky (if existent) data bases. Our analyses show reason to be concerned about junior

kindergarten programs. Placement in these programs may well become the first step in "tracking" children, a practice that has long plagued American schools (Oakes, 1985). When Rist (1970) argued that decisions that resulted in tracking were being made by the eighth day of school, there was just concern. We suggest that such decisions may be being made as soon as children knock on schooling's door.

Endnotes

1 In our larger sample from 55 school districts, 15% of the children placed in junior kindergarten were promoted to first grade the next year, and 7% were placed in transitional first. The latter group is still taking 2 years to get to first grade. We do not know at this point whether children who were promoted to first may have also been "promoted" to regular kindergarten during their first year. We have anecdotal evidence that this within-year promotion does occur.

2 In Virginia, school districts are called divisions. We use the more commonly used district to avoid confusion.

3 Tests examined were the Brigance Kindergarten and First Grade Screen, the Developmental Indicators for the Assessment of Learning-Revised (DIAL-R), the Missouri Kindergarten Inventory of Developmental Skill (KIDS), and the Daberon Screening for School Readiness.

4 In the 1986/87 school year there were 135 districts. There are now 133.

5 Five children had missing data.

6 Because only one child was not enrolled, placement was collapsed into a dichotomy for all analyses.

7 Age was constructed as a categorical variable based on the three month roll-back in cutoff date described earlier, which

created October, November, December birthdays as a category.

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Figure 1
SES and Initial Placement

Frequency Row pct Col pct	Regular Kindergarten out	 in	
eligible subsidized lunch	151 42% 58%	205 58% 30%	356 37%
not eligible	108 18% 42%	488 82% 70%	596 63%
totals	259 27%	693 73%	952

Chi-square= 66.43 ($p \leq .01$) C= .26 (missing=7)

Figure 2
Ethnicity and Initial Placement

Frequency / Row pct / Col pct	Regular Kindergarten: out	Regular Kindergarten: in	
minority	118 37% 46%	205 63% 30%	323 34%
majority	140 23% 54%	482 77% 70%	622 66%
totals	258 27%	687 73%	945

Chi-square= 21.07 ($p \leq .01$) C= .15 (missing=14)

Figure 3
Gender and Initial Placement

Frequency Row pct Col pct	Regular Kindergarten out	 in	
boys	161 32% 62%	341 68% 49%	502 53%
girls	98 22% 38%	356 78% 51%	454 47%
totals	259 27%	697 73%	956

Chi-square= 13.27 ($p \leq .01$) C= .12 (missing=3)

Figure 4
Age and Initial Placement

Frequency / Row pct / Col pct	Regular Kindergarten out	in	
Winter 1981	35 14% 14%	214 86% 31%	249 26%
Spring 1981	43 18% 17%	193 82% 28%	236 25%
Summer 1981	89 33% 34%	183 67% 26%	272 28%
Fall 1981	92 46% 36%	107 54% 15%	199 21%
totals	259 27%	697 73%	956

Chi-square= 72.09 ($p \leq .01$) C= .27 (missing=3)

Figure 5:
Age and Initial Placement (December Birthdays vs Others)

	Regular Kindergarten out	Regular Kindergarten in	
December	32 60% 12%	21 40% 3%	53 6%
Jan-Nov	227 25% 88%	676 75% 97%	903 94%
totals	259 27%	697 73%	956

Chi-square= 31.47 ($p \leq .01$) C= .18 (missing=11)

Table 1
Sample and Population Districts

District	% Eligible for subsidized lunch	Enrollment	Expenditures
*a	36%	3,311	low
*b	41%	3,499	average
*c	21%	2,099	average
*d	51%	2,533	average
*e	47%	1,204	high
*f	30%	1,852	high
g	22%	8,914	average
h	53%	1,175	high
i	10%	38,568	average
j	31%	2,045	average
k	20%	5,089	average
l	38%	3,961	high
m	61%	2,498	high
n	13%	11,501	low
o	47%	4,067	high
p	26%	1,418	high
q	67%	6,501	average

Key:
*: districts in sample
Expenditures: per-pupil on instructional materials: high (≥ $90); average ($60 - $89); and low (≤ $59).

Table 2
Odds of Placement in or out of Regular Kindergarten

	Sex	SES	Birth	n	Observed probabilities Out	In	Predicted odds Out	In_a
1.	Male	Free[b]	Winter	49	.27	.73	.39	2.55
2.	Male	Free	Spring	42	.41	.59	.62	1.62
3.	Male	Free	Summer	58	.55	.45	1.27	.79
4.	Male	Free	Fall	44	.64	.36	2.25	.44
5.	Male	Not	Winter	83	.08	.92	.11	8.81
6.	Male	Not	Spring	77	.18	.82	.18	5.59
7.	Male	Not	Summer	77	.27	.73	.37	2.72
8.	Male	Not	Fall	70	.41	.59	.65	1.54
9.	Female	Free	Winter	46	.26	.74	.24	4.17
10.	Female	Free	Spring	39	.26	.74	.38	2.65
11.	Female	Free	Summer	44	.41	.59	.78	1.29
12.	Female	Free	Fall	34	.62	.38	1.37	.73
13.	Female	Not	Winter	71	.04	.96	.07	14.43
14.	Female	Not	Spring	77	.03	.97	.11	9.16
15.	Female	Not	Summer	91	.20	.80	1.20	.83
16.	Female	Not	Fall	50	.28	.72	1.21	.83

[a] Where $odds_{in} = 1 / odds_{out}$
[b] Eligible for subsidized (free or reduced) lunch